CLAIMS

1. An apparatus for opening and closing a roof of a container, the roof being formed by joining a cover to an opened top end of the container, the apparatus comprising:

a pair of guide rails installed on top ends of both side walls of the container , respectively;

cover supporting members disposed on the guide rails for supporting the cover, both ends of the cover supporting member being installed to be slid on the guide rails, respectively;

sliding means for sliding the cover supporting member; and

brace bars foldably connected to the cover supporting member for connecting the adjacent cover supporting members,

whereby the cover supporting member is slid along the guide rail to open and close the cover.

2. The apparatus according to claim 1, wherein the guide rail includes:

a rail frame having a shape of "ㄷ" , the rail frame being installed on each top end of both side walls of the container; and

a guide having a shape of "ㄱ", the guide being formed on an inner side of a center part of the rail frame to guide the slide of the cover supporting member.

3. The apparatus accounting claim 2, wherein the cover supporting member includes:

a bow bar for supporting the cover;.

roller devices connected to both ends of the bow bar, respectively, and slid along the guide rail; and

a brace holder connecting the roller device and the bow bar by interposing between the bow bar and the roller device, the brace holder being connecting with the brace bar.

4. The apparatus accounting claim 3, wherein the roller device includes:

a joining member joined to the brace holder;

a plurality of rollers slid along upper surface and both side surfaces of the guide of the guide rail, respectively; and

a roller supporting member extended to the connecting member to rotatably support each of the rollers.

5. The apparatus accounting claim 4, wherein the roller supporting member includes:

a body extended from the joining member;

a first roller supporting part horizontally extended to the front end of the body to rotatably support the roller slid along the upper surface of the guide;

a second roller supporting part extended vertically downward from the front end of the body to roatatably support the roller slid along one side surface of the guide; and

a third roller supporting part connected to the lower end of the second rollers supporting part to be spaced in parallel with the second roller supporting part, thereby to rotatably support the roller slid along the other side surface of the guide.

6. The apparatus accounting claim 5, wherein each of the roller supporting parts is formed with a center portion having a projected rounding shape toward the guide.

7. The apparatus accounting claim 6, wherein the brace holder includes:

a holder body having a cylindrical shape;

an inserting hollow part extended to one end of the holder body to receive and fasten the joining member;

an inserting projection extended to the other end of the holder body to insert into an inserting groove formed at both ends of the bow bar; and

a pair of wings extended in both directions from the side portion of the holder body to join with the brace bars, respectively.

8. The apparatus accounting claim 7, wherein a stepped surface for restricting the insertion of the joining member is formed between the joining member and the roller supporting member, the joining member being formed with an elongated hole which a fastening member for joining the joining member to the inserting hollow part passes through, the elongated hole being formed in the longitudinal direction of the joining member.

9. The apparatus accounting to claim 7, wherein each of the wings is formed having a different height.

10. The apparatus accounting to claim 9, wherein the apparatus further comprises an elastic member inserted into an inserting hollow of the bow bar to apply force in the direction of pushing the inserting projection outwardly.

11. The apparatus according to claim 3, wherein the sliding means includes:
a pulley installed roatatably at a front side or a rear side of the guide rail;
an opening and closing rope wrapped around the pulley, the rope having a portion hung down on the opposite outside of the pulley and both ends joined to one end of the cover supporting member positioned in the front most side or the rearmost side of the container; and
a weight body for preventing the opening and closing rope from becoming loose by pulling down the opening and closing rope with its own weight, while causing the opening and closing rope to pass therethrough when pulling the opening and closing rope.

12. The apparatus according to claim 11, wherein the sliding means further includes a supporting plate provided with the roller device, the supporting plate being formed with a pair of rope passing holes spaced right and left for causing the opening and closing rope to pass therethrough.

13. The apparatus according to claim 3, wherein the sliding means is on opening and closing rope connected to the center of the bow bar of the cover supporting member positioned at the frontmost side or the rearmost side of the container in order to open and close the cover by pulling at the opening and closing rope.

14. The apparatus according to claim 3, wherein the sliding means is a pair of opening and closing ropes respectively connected to the roller devices to open and close the cover when two workers simultaneously pull at the ropes frontward or rearward.

15. The apparatus according to claim 1, wherein the apparatus further comprises

a joining means arrayed right and left on a bottom surface of the cover to detachably join the cover to the cover supporting member.

16. The apparatus according to claim 15, wherein the joining means is velcro.